



2004 PRODUCT CATALOG



NO CHARGE

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rockets
.com

TABLE OF CONTENTS

Index	2
How To Start	3
Model Rocket Safety Code	5
Ready To Fly Starter Sets	6
E2X® Starter Sets	8
Ready To Fly Model Rockets	10
E2X® Rocket Kits	10
Skill Level 1 Rocket Kits	16
Skill Level 2 Rocket Kits	22

Skill Level 3 Rocket Kits	26
"E" Engine Powered Kits	28
Estes Model Rocket Engines	29
Estes Engine Chart	30
Estes Engine Time/Thrust Curves	31
Estes Accessories	32
Educational Products	33
Estes Specialty Products	34
Estes Rocket Powered Racers	Back Cover

INDEX

220 Swift™	16
A.R.V. Condor™	23
Accessories	32
AGM-57X Heatseeker™	15
Alpha®	17
Alpha® Bulk Pack	33
Alpha III®	13
Alpha III® Bulk Pack	33
Baby Bertha®	17
Bandito™	11
Big Bertha™	19
Big Daddy™	25
BLU-97B Cluster Bomb™	19
Blue Ninja™	13
Bull Pup 12D™	25
CC Express™	23
Chrome Domes™-Gold Series	15
Chrome Domes™-Silver Series	15
Comanche-3™	27
Cosmic Cobra™	13
Cruise Missile™	11
Educational Products	33
Eliminator™	28
Engine Bulk Packs	33
Engines	29-31
Estes Air® GL-X200™	35
Estes Air® HL-X150™	35
Estes Air® Rocket Class Pack	35
Executioner™	28
Fat Boy™	21
Firehawk™	11
Firestreak SST™	11
Flight Master® Condor	35
Flight Master® Raven	35
1406 Alpha III® Starter Set	9
Freaky Flyer™	13
GBU-24 Paveway III™	23
Gemini DC™	23
Generic E2X® Bulk Pack	33
Gnome™	11
Gnome™ Bulk Pack	33
Goliath™	9
Guardian™	25
Hi-Flier®	21
Hydrogen Fuel Rocket™	35

Kick Dist™ Power Puck	35
Max Trax™	7
Mean Machine™	23
Mega Maxx™	9
Mercury Redstone	25
Meteor Masher™	25
Mini Meanie™	13
Mini Super Shot™	9
Monarch™	21
Mongoose™	21
Nemesis™	25
No. 2 Estes Sky Writer™	13
Nova Payloader™	19
NSA Starship™	7
Outlander™	27
Patriot	7
Phoenix™	27
Polaris™ Bulk Pack	33
Python 4™ ASRAAM	23
Quark™	17
Renegade™	27
Rocket Powered Racers	Back Cover
Scream'n' Mimi™	25
Shuttle Xpress™	15
Sizzler®	21
SnapShot	7
Snitch™	11
Space Bus™	9
Space Hauler™	9
Spitfire SST™	9
SR-71 Blackbird™	27
Star Dart™	21
Stars & Stripes™	9
StormCaster™	17
T-25 Centurian™	28
U.S. Army Patriot M-104	19
V-2	28
Viking™	19
Viking™ Bulk Pack	33
Wacky Wiggler™	15
Wizard™	17
Wizard™ Bulk Pack	33
X-Ray™	11
Yankee™	19

HOW DO I START MY OWN ESTES ROCKET FLEET?

The best way to begin model rocketry is with an Estes flying model rocket starter set. You can either start with a Ready To Fly Starter Set that has a fully constructed model rocket or an E2X® Starter Set that requires assembly prior to launching. Both types of sets come complete with an electrical launch controller, adjustable launch pad, engines, flight supplies and an information booklet to get you out and flying in no time. You'll need four "AA" alkaline batteries and perhaps glue, depending on which set you select.

HOW EASY AND HOW MUCH TIME DOES IT TAKE TO BUILD MY ROCKETS?

Estes model rocket kits range from ready to fly in just minutes to those that provide many enjoyable hours of building fun. Estes kits are classified into six categories.

READY TO FLY (RTF): No paint, glue or modeling skills required. Rocket comes assembled and is ready for lift-off in just minutes.

E2X® ROCKET KITS: No paint or special tools needed. E2X® kits contain parts that are colored and easy to assemble. Simply glue the parts together as per the instructions, apply the self-adhesive decals, attach the recovery system and you are ready to blast off! Assembly takes as little as 1 hour.

SKILL LEVEL 1 ROCKET KITS: Requires some painting, gluing and sanding. Features die cut balsa fins, slotted body tubes, plastic nose cones and rub-down decals. Step by step instructions make building very easy. Assembly takes at least an afternoon.

SKILL LEVEL 2 ROCKET KITS: First tier of more advanced kits. Requires beginner skills in model rocket construction and finishing. Features die cut balsa or plastic fins, plastic nose cones and unfinished body tubes. Assembly time may take a complete day.

SKILL LEVEL 3 ROCKET KITS: Second tier of more advanced kits. Requires moderate skills in model rocket construction and finishing. Features multiple die cut balsa fins and parts, unfinished body tubes, complex designs and plastic nose cones. Assembly time may take a couple of days.

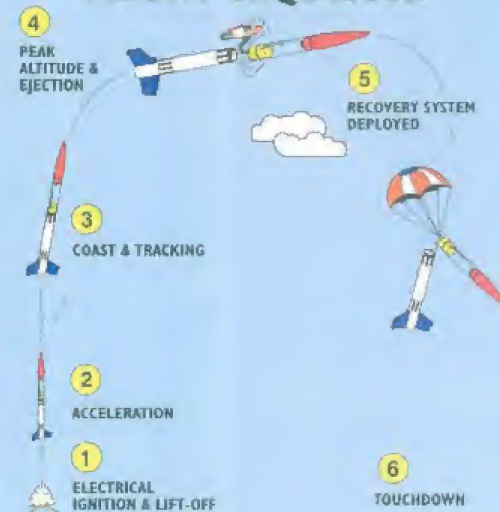
SKILL LEVEL 4 ROCKET KITS: The most advanced kit level. Requires high degree of model rocket construction and finishing skills. Features multiple die cut balsa parts, vacuum formed plastic detailing, unfinished body tubes and water soluble decals. Assembly can take several days depending on detail required.

HOW DO ESTES MODEL ROCKETS WORK?

Estes model rockets are activity kits designed of lightweight materials such as paper tubing, balsa wood and plastic. Balsa or plastic fins are glued to the body tube for guidance and stability. A model rocket engine holder is also part of the rocket to keep the engine in place during thrust.

Estes was the first to develop a mass produced model rocket engine and has produced the engines for over 45 years. The Estes model rocket is propelled into the air by an electrically ignited model rocket engine. After its acceleration, the rocket continues upward emitting tracking smoke as it coasts. At the rocket's peak altitude (also called apogee), a recovery device, such as a plastic parachute or streamer, is deployed to return the rocket gently to earth. The rocket can then be prepped for another flight.

FLIGHT SEQUENCE



WHERE DO I FLY ESTES MODEL ROCKETS?

The chart on the next page tells you what size field to use for each size engine. Each engine size is designated by a letter and is up to twice as powerful as the letter before it. See the engine section (pages 29-31) of this catalog for more information.

HOW DID IT ALL GET STARTED?

In the mid-1950's when the space age began, flying rockets became very popular. However, there were no safe propellants readily available to launch rockets. In 1958 Vernon Estes developed the first safe mass-produced model rocket engine. The Estes rocket engine was destined to make model rocketry one of the most popular outdoor activities enjoyed today. Estes products have changed with the times and you can see all the exciting rockets, planes and specialty items in this catalog or on the web @ www.estesrockets.com.

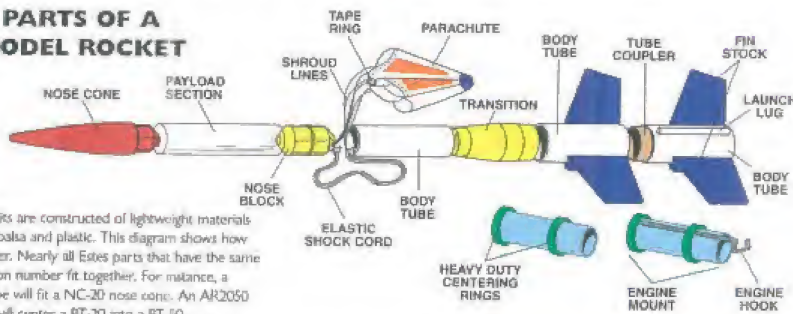
WHAT DO I NEED TO KNOW?

In this catalog, each description lists important INFORMATION:

- Something fun about the rocket.
- Specifications - how tall, wide and heavy.
- What engines we recommend.
- How high, on the largest engine recommended, the rocket flies (in feet and in meters).
- Maximum altitudes are projections only; your rocket's actual performance may vary.
- The sort of recovery system that brings the rocket back - parachute, streamer or other.
- The type of fin material - plastic, balsa or fiber.

Remember - Estes model rocket kits offer you a wide spectrum of building and flying. Best of all, they are all fun!

PARTS OF A MODEL ROCKET



Model rocket kits are constructed of lightweight materials such as paper, balsa and plastic. This diagram shows how parts fit together. Nearly all Estes parts that have the same series description number fit together. For instance, a BT-20 body tube will fit a NC-20 nose cone. An AR2050 centering ring will center a BT-20 into a BT-50.

PLEASE READ: IMPORTANT STUFF!

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Unless otherwise specified all models require assembly. Engines, launch system, glue and finishing supplies are not included with model rocket kits unless specified otherwise.

USE ONLY WITH ESTES PRODUCTS

Caution: Use of any Estes product with any other brand-name rocket product containing any defect or causing any damage may void the Estes warranty.

ESTES WARRANTY

Your Estes product is warranted against defects in materials or workmanship for a period from the date of original purchase. Any Estes product, which, because of a manufacturing mistake, malfunctions or proves to be defective within the period noted in the warranty provided with the product will be repaired or replaced, at Estes' option and at no charge to you, provided it is returned to Estes with proof of purchase.

This warranty does not cover incidental or consequential damage to persons or property caused by the use, abuse, misuse, failure to comply with operating instructions or improper storage of the warranted products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

For repair or replacement under this warranty, please return the defective part of your Estes product with proof of purchase to: Estes Industries, Customer Service Department, 1295 H Street, Penrose, Colorado 81240.

ROCKET TIP!

In most cases, baseball, soccer or football fields are great launch areas.



N.A.R.* MODEL ROCKET SAFETY CODE

Effective February 10, 2001

1. MATERIALS. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.

2. MOTORS. I will use only certified, commercial-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.

3. IGNITION SYSTEM. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.

4. MISFIRES. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.

5. LAUNCH SAFETY. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet (4.6 m) away when I launch rockets with D motors or smaller, and 30 feet (9 m) when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance.

6. LAUNCHER. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.

7. SIZE. My model rocket will not weigh more than 53 ounces (1500 grams) at liftoff and will not contain more than 4.4 ounces (125 grams) of propellant or 71.9 pound-seconds (320 N-sec) of total impulse. If my model rocket weighs more than one pound (453 grams) at liftoff or has more than 4 ounces (113 grams) of propellant, I will check and comply with Federal Aviation Administration regulations before flying.

8. FLIGHT SAFETY. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.

9. LAUNCH SITE. I will launch my rocket outdoors, in an open area at least as large as shown in the accompanying table, and in safe weather conditions with wind speeds no greater than 20 miles per hour (32 km/h). I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.

LAUNCH SITE DIMENSIONS

Installed Total Impulse	Equivalent Motor Type	Minimum Site Dimensions	
		Feet	Meters
.00 - 1.25	1/4A, 1/2A	50	15
1.26 - 2.50	A	100	30
2.51 - 5.00	B	200	60
5.01 - 10.00	C	400	120
10.01 - 20.00	D	500	150
20.01 - 40.00	E	1,000	300
40.01 - 80.00	F	1,000	300
80.01 - 160.00	G	1,000	300
160.01 - 320.00	Two G's	1,500	450

10. RECOVERY SYSTEM. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.

11. RECOVERY SAFETY. I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.

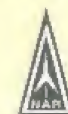
As a member of the Estes Model Rocketry Program, I promise to faithfully follow all rules of safe conduct as established in the above code.

Signature _____

Important Note: "G" engines must be sold to and used by adults (18 and up) only.

To launch large model rockets weighing more than one lb. (453 g) including propellant or rockets containing more than 4 oz. (113 g) but no more than 4.4 oz. (125 g) of propellant (net weight), you must notify and perhaps obtain authorization from the Federal Aviation Administration (FAA). Check your telephone directory for the office nearest you or contact Estes® Industries for further information.

*National Association of Rocketry



www.nar.org



READY TO FLY STARTER SETS

ALTITUDE
TRACKING
CAPSULE!



max trax™

New!



PATRIOT

New!



NSA STARSHIP™

EVERY STARTER SET INCLUDES LAUNCH
EQUIPMENT & FLIGHT SUPPLIES!



4 "AA" Alkaline Batteries required - not included.

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Must be 14 to purchase in California or New Jersey.

READY TO FLY (RTF) STARTER SETS

- Fully constructed and decorated rocket
- Complete launch system with flight supplies
- Ready to fly in minutes

INCLUDES FREE
KODAK 110
COLOR FILM!

New!



SNAPSHOT™

Colors may vary.

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rockets
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RTF STARTER SETS

MAX TRAX™

1434

Track how high this rocket flies. The Max Trax™ features an electronic altitude-tracking capsule that automatically calculates and displays how high the rocket traveled in feet and meters.

SPECS: Length: 17 in. (43.2 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.6 oz. (73.9 g);

Recovery: Rocket - 12 in. (30 cm) Parachute; Capsule - Streamer; **Fins:** Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: B4-2, B6-2, B6-4, C6-3, C6-5 (Includes two engines)



PATRIOT

1825

The Patriot dominates the skies. This classic scale-like model rocket is built ready-to-fly and looks like the genuine surface-air defense missile used by the U.S. Army.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.7 oz. (75 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5 (Includes two engines)

NSA STARSHIP™

1827

"Penrose, we have lift-off!" Explore new worlds with the NSA Starship. Like those launched at the cape, this ready-to-fly model rocket soars high into the sky then deploys a parachute to return to earth.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.7 oz. (75 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5 (Includes two engines)

SNAPSHOT™

1848

Take fantastic photos from 500 feet high! The Snapshot™ camera rocket is factory assembled and ready to launch. Includes a FREE roll of Kodak 110 color print film. Film developing available locally.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 3 oz. (86.2 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 500 ft. (152 m);

Recommended Engine: C6-5 ONLY (Includes two engines)



E2X® STARTER SETS



MINI SUPER SHOT™



SPACE BUS™

SPACE HAULER™

FLAG
WAVING
RECOVERY
STREAMER



1406 ALPHA III™



STARS & STRIPES™

E2X® STARTER SETS

- Almost ready to fly rocket
- Assembled parachute
- Self-adhesive decals
- Complete launch system with engines
- Colored parts



E2X® STARTER SETS

1406 ALPHA III™

1406

Features a bright molded one piece fin unit and nose cone and engines for two fantastic parachute recovered flights.

SPECS: Length: 12.25 in. (31.1 cm);

Dia.: 0.98 in. (24.9 mm); **Wt.:** 1.2 oz. (34 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 (Includes two engines)

STARS & STRIPES™

1407

Includes a Red, White and Blue model rocket and a choice between 2 self-adhesive patriotic decals. A special edition, 4 in. x 6 in. Freedom Flag decal is also included to proudly display.

SPECS: Length: 17.5 in. (44.5 cm);

Dia.: 1.0 in. (25.4 mm); **Wt.:** 2.3 oz. (65 g);

Recovery: American Flag Streamer;

Fins: Two piece plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 (Includes two engines)

MINI SUPER SHOT™

1431

Features two mini-engine powered rockets that can be ready to fly in an hour! Also includes special mini-rocket launch pad.

SPECS: Length: Space Bus™ - 5.25 in. (13.3 cm);

Space Hauler™ - 5.38 in. (13.7 cm);

Dia.: Space Bus™ - 1.0 in. (25.4 mm); Space Hauler™ -

0.75 in. (19.1 mm); **Wt.:** Space Bus™ - 0.74 oz. (21.2 g);

Space Hauler™ - 0.67 oz. (18.9 g)

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: Space Bus - 700 ft. (213 m); Space Hauler - 760 ft. (231 m);

Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T (Includes two engines)

MEGA MAXX™

1474

The Mega Maxx™ combines the power of the over two-foot tall Goliath™ with the speed of the Spitfire™. The easy to assemble Goliath™ flies to 500 feet while the simple to build Spitfire™ screams to 900 feet! (Includes two engines)

GOLIATH™

Skill Level: E2X®

SPECS: Length: 28 in. (71.1 cm);

Dia.: 1.34 in. (34 mm); **Wt.:** 3 oz. (85 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 500 ft. (152 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

SPITFIRE SSI™

Skill Level: I

SPECS: Length: 16.25 in. (41.3 cm);

Dia.: 0.98 in. (24.9 mm); **Wt.:** 1.7 oz. (48 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 900 ft. (274 m);

Recommended Engines: 1/2A6-2, A8-3, B4-4, B6-4, B6-6, C6-5, C6-7 (Includes two engines)

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Must be 14 to purchase in California or New Jersey.

Colors may vary.

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rockets
.com



READY TO FLY ROCKET KITS

- Quick Fly! Rocket!
- No Painting
- No Assembly Required!
- Engines and launch equipment sold separately.



SNITCH™



CRUISE MISSILE™

E2X® ROCKET KITS

New!



HIGH
FLYING
3
FIN
DESIGN

BANDITO™

New!



HIGH
PERFORMANCE
4
FIN
DESIGN

FIREHAWK™

New!

ALL NEW!
"SNAPS"
TOGETHER!



FIRESTREAK SST™

E2X® ROCKET SETS

- Easy to Assemble
- No Painting
- Self-adhesive details
- Engines and launch equipment sold separately



X-RAY™



GNOME™

Colors may vary.

READY TO FLY (RTF) ROCKETS

SNITCH™

1807

Travel out of this world with this hot, neon colored flying saucer. This RTF alien space ship comes fully assembled and decorated.
SPECS: Dia.: 7.75 in. (19.7 cm); **Wt.:** 2.1 oz. (59 g);
Recovery: Spring Action;
Max. Altitude: 120 ft. (37 m);
Recommended Engines: B6-O, C6-O

CRUISE MISSILE™

1847

Imagine the thrill of launching this realistic model of America's most potent strategic weapon. Ready to fly in just minutes.
SPECS: Length: 9.0 in. (22.9 cm);
Dia.: 1.0 in. (25.4 mm); **Wt.:** 1.4 oz. (40 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Plastic molded;
Max. Altitude: 200 ft. (61 m);
Recommended Engines: A3-4T, A10-3T

E2X® ROCKET KITS

BANDITO™

0803

The high-flying Bandito™ sport rocket can be easily assembled in under an hour. Includes pre-colored slotted body tube and plastic parts and screams into the sky on mini-engines.
SPECS: Length: 11.2 in. (28.4 cm);
Dia.: 0.736 in. (18.7 mm); **Wt.:** 0.60 oz. (17 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Plastic molded;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: 1/4A3-3T, 1/2A3-2T, A3-4T, A10-3T

FIREHAWK™

0804

The Firehawk™ is a high performance, quick-to-build rocket that streaks over 500 feet high on mini-engines. Includes pre-colored body tube and plastic parts. Builds in less than 30 minutes.
SPECS: Length: 11.2 in. (28.4 cm);
Dia.: 0.736 in. (18.7 mm); **Wt.:** 0.65 oz. (18.4 g);
Recovery: 12 in. (30 cm) Parachute; **Fins:** Plastic molded;
Max. Altitude: 550 ft. (168 m);
Recommended Engines: 1/4A3-3T, 1/2A3-2T, A3-4T, A10-3T

FIRESTREAK SST™

0806

An Estes original! The first-ever snap together rocket. No fuss, no muss, simply snap the Firestreak SST™ together and get out and launch this hot looking rocket in minutes.
SPECS: Length: 10.2 in. (26 cm);
Dia.: 0.885 in. (22.5 mm); **Wt.:** 1.14 oz. (32.3 g);
Recovery: Streamer; **Fins:** Plastic molded;
Max. Altitude: 350 ft. (107 m);
Recommended Engines: 1/2A3-2T, A3-4T, A10-3T

X-RAY™

0834

Carry cargo through the air with the X-Ray™! The X-Ray™ features a clear payload tube that allows you to launch cargo into the air and return it back to earth. Perfect for science experiments. Colored, one piece fin unit for a quick assembly. **SPECS:** Length: 14.8 in. (37.6 cm);
Dia.: 0.74 in. (18.8 mm); **Wt.:** 0.6 oz. (17 g);
Recovery: Streamer; **Fins:** One piece plastic molded;
Max. Altitude: 500 ft. (152 m);
Recommended Engines: 1/2A3-2T, A3-4T, A10-3T

GNOME™

0806

Eye-dazzling, chrome rocket soars to heights of 800 ft. (244 m). The Gnome™ comes with a colored one piece fin unit for quick assembly. Be ready to launch in less than an hour.
SPECS: Length: 10.3 in. (26.0 cm);
Dia.: 0.54 in. (13.8 mm); **Wt.:** 0.4 oz. (12 g);
Recovery: Streamer;
Fins: One piece plastic molded;
Max. Altitude: 800 ft. (244 m);
Recommended Engines: 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T

Estes model rockets are recommended for ages 12 and up. Always use proper launch technique. Read instructions carefully. Do not use under 12 years old age.

E2X[®] ROCKET KITS

CLASSIC DESIGN
&
EASY TO BUILD



ALPHA III[™]



MINI
MEANIE[™]



FREAKY
FLYER[™]



NO. 2 ESTES
SKY WRITER[™]



COSMIC
COBRA[™]



BLUE
NINJA[™]



Estes model rockets are recommended for ages 10 and over. Adult supervision is recommended for those under 13 years of age.

Colors may vary.

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E2X[®] ROCKET KITS

MINI MEANIE[™]

1202

Get out of the way...the Mini Meanie[™] is tearing up the sky. It soars up to 700 ft. (213 m). The Mini Meanie[™] comes with a colored nose cone and body halves, so no painting is required.

SPECS: Length: 5.25 in. (13.3 cm);

Dia.: 1.0 in. (25.4 mm); **Wt.:** 0.74 oz. (21.2 g);

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: 700 ft. (213 m);

Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T

FREAKY FLYER[™]

1203

This "Freaky" mini-engine rocket has an eye-catching look to it. It blasts to 750 ft. (228 m). The Freaky Flyer[™] comes with a colored nose cone and body halves, so it can be ready in under an hour.

SPECS: Length: 5.38 in. (13.7 cm);

Dia.: 0.75 in. (19.1 mm); **Wt.:** 0.67 oz. (18.9 g)

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: 750 ft. (228 m);

Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T

ALPHA III[™]

1256

The very first Estes E2X[®] rocket! One piece fin unit for easy construction. Millions have started with this classic design.

SPECS: Length: 12.3 in. (31.1 cm);

Dia.: 0.98 in. (24.8 mm); **Wt.:** 1.2 oz. (34 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

NO. 2 ESTES SKY WRITER[™]

1260

This fun rocket looks like a wooden pencil. It "sky writes" up to 1100 ft. (335 m) in the air. The No. 2 Estes Sky Writer[™] comes with colored body tubes, fins and nose cone, so assembly is quick and easy.

SPECS: Length: 26 in. (66 cm);

Dia.: 0.98 in. (24.8 mm); **Wt.:** 1.5 oz. (41.3 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

COSMIC COBRA[™]

1262

The Cosmic Cobra[™] features a two-way recovery system. The booster returns to earth using a 12 in. (30 cm) parachute, while the nose cone helicopters down gently using rotor blades.

SPECS: Length: 19.5 in. (49.5 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 3.1 oz. (88 g);

Recovery: Booster - 12 in. (30 cm) Parachute; Nose Cone - Helicopter;

Fins: Two piece plastic molded;

Max. Altitude: 530 ft. (162 m);

Recommended Engines: B4-2, B6-2, B6-4, C6-3, C6-5

BLUE NINJA[™]

1300

The Blue Ninja[™] is the biggest rocket in the E2X[®] class! It is over 30 in. (76.2 cm) tall and is powered by a "C11" or "D" engine. The Blue Ninja[™] comes with shiny blue prismatic body tubes and colored fins and nose cone.

SPECS: Length: 31.3 in. (79.5 cm);

Dia.: 1.64 in. (41.6 mm); **Wt.:** 5.1 oz. (145.4 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 780 ft. (238 m);

Recommended Engines: C11-3, D12-3

Requires 3/16" (5 mm) Maxi[™] launch rod (302244) - sold separately.



**AGM-57X
HEATSEEKER™**

**SLEEK,
MILITARY STYLE
AIR-AIR
MISSILE**



**CHROME DOMES™
SILVER SERIES**



**CHROME DOMES™
GOLD SERIES**

**WIGGLES
BACK TO
EARTH!**



**WACKY
WIGGLER™**

**2 SHUTTLES
SOAR
THROUGH
THE SKY!**



**SHUTTLE
XPRESS™**



Colors may vary.

E2X[®] ROCKET KITS

AGM-57X HEATSEEKER™ 2158

Defend your neighborhood with this air-to-air missile. No painting required. The AGM-57X Heatseeker™ can be ready to fly in under an hour.

SPECS: Length: 18.6 in. (47.2 cm);
Dia.: 1.0 in. (25.4 mm); **Wt.:** 1.9 oz. (55 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Plastic molded;
Max. Altitude: 800 ft. (244 m);
Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5, C6-7

CHROME DOMES™ SILVER SERIES 2180

Look at this rocket shine! Chrome Domes™ - Silver Series rockets feature silver chrome plated fins and nose cone. The body tube comes in a variety of prismatic colors (each color sold separately).

SPECS: Length: 18 in. (45.7 cm);
Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.7 oz. (75 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Two piece plastic molded;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

CHROME DOMES™ GOLD SERIES 2181

Catch some attention! Chrome Domes™ - Gold Series rockets feature gold chrome plated fins and nose cone. The body tube comes in a variety of prismatic colors (each color sold separately).

SPECS: Length: 18 in. (45.7 cm);
Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.7 oz. (75 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Two piece plastic molded;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

WACKY WIGGLER™ 2182

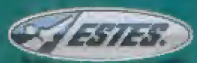
Wacky Wiggler™ launches like a standard rocket, but comes down in a whole new way. The prismatic body sections separate and the entire rocket "wiggles" its way back to earth. This wacky recovery rocket can fly over 1000 ft. (305 m).

SPECS: Length: 17.75 in. (45.1 cm);
Dia.: 1.1 in. (27.9 mm); **Wt.:** 2.0 oz. (56.5 g);
Recovery: Break-apart;
Fins: Plastic molded;
Max. Altitude: 1040 ft. (317 m);
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, C6-3, C6-5

SHUTTLE XPRESS™ 2183

New wave of fighter technology. The Shuttle Xpress™ carries two fighter shuttles to battle. At apogee, it releases the two fighter shuttles that glide back to earth. The booster is recovered by a 12 in. (30 cm) Parachute.

SPECS: Length: 17.69 in. (44.9 cm);
Dia.: 1.35 in. (34.3 mm); **Wt.:** 3.2 oz. (89.7 g);
Recovery: Booster - 12 in. (30 cm) Parachute; Shuttles - Glider;
Fins: Plastic molded;
Max. Altitude: 586 ft. (179 m);
Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5



SKILL LEVEL 1 ROCKET KITS

LEVEL 1

- Quick and easy to build kits with sanding, cutting and painting required
- Some kits feature a Through-The-Tube Fin System
- Engines and launch equipment sold separately



QUARK™



220 SWIFT™



ALPHA™



BABY BERTHA™



WIZARD™

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

New!

GO BALLISTIC!



STORMCASTER™

SKILL LEVEL 1 ROCKET KITS

QUARK™ **0802**
Mini-engine powered mighty mite. With incredibly simple construction (only seven parts), a little spray paint and decals, and whoosh - out-a-sight flights to 700 ft. (213 m). Quick featherweight recovery for this micro rocket.
SPECS: Length: 5.2 in. (13.2 cm);
Dia.: 0.54 in. (13.7 mm); Wt.: 0.1 oz. (3 g);
Recovery: Featherweight;
Fins: Die cut balsa;
Max. Altitude: 700 ft. (213 m);
Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T

220 SWIFT™ **0810**
This fun and easy to build "itty-bitty" rocket really scoots through the sky. The 220 Swift™ is sleek and launches on mini-engines then tumbles back to earth.
SPECS: Length: 4.5 in. (11.4 cm);
Dia.: 0.54 in. (13.7 mm); Wt.: 0.094 oz. (2.7 g);
Recovery: Featherweight;
Fins: Die cut balsa;
Max. Altitude: 750 ft. (260 m);
Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T

ALPHA™ **1225**
For over 36 years, the Alpha® has been the first choice for millions of rocket modelers. Easy to build, rugged high performance, parachute recovery - the perfect rocket to get you started!
SPECS: Length: 12.3 in. (31.2 cm);
Dia.: 0.98 in. (24.9 mm); Wt.: 0.8 oz. (23 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 1000 ft. (305 m);
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

BABY BERTHA™ **1261**
A miniature version of one of the most popular kits of all time, the Big Bertha®. The Baby Bertha™ soars to 575 ft. (175 m).
SPECS: Length: 12.75 in. (32.4 cm);
Dia.: 1.64 in. (41.6 mm); Wt.: 1.6 oz. (45.3 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 575 ft. (175 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

WIZARD™ **1292**
No tricks here - the Wizard™ is an easy to build high-performance kit. A great first or second kit that promises real excitement and fun!
SPECS: Length: 12 in. (30.5 cm);
Dia.: 0.74 in. (18.8 mm); Wt.: 0.4 oz. (12 g);
Recovery: Streamer;
Fins: Die cut balsa;
Max. Altitude: 1500 ft. (457 m);
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

STORMCASTER™ **1301**
Go big on a small budget! Powered by the "C11" engine, this big rocket can also be used with a "D" engine. The StormCaster™ is over 30 in. (76.2 cm) tall. It flies up to 930 ft. (283 m).
SPECS: Length: 30.25 in. (76.8 cm);
Dia.: 1.64 (41.6 mm); Wt.: 2.9 oz. (80.8 g);
Recovery: 18 in. (46 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 930 ft. (283 m);
Recommended Engines: C11-3, C11-5, D12-5
Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

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estes
rockets
.com



SKILL LEVEL 1 ROCKET KITS



YANKEE™



VIPER™



**NOVA
PHALANX™**



BIG BERTHA™

**ESTES
CLASSIC!**



www.estesrockets.com

Estes-Cox Corporation

**ESTES® 2004 RETAIL
PRICE LIST**

EFFECTIVE
01-01-04



[www.
estes
rockets
.com](http://www.estesrockets.com)

ESTES 2004 RETAIL PRICE LIST



Prod. No.	Description	Price Each
SPECIALTY		
1854	Jet Stix™ Air Powered Glider	10.99
1876	Hydrogen Fuel Rocket™ <i>New</i>	49.99
4014	Flight Master® Raven™ Plane	7.99
4016	Flight Master® Condor™ Plane	7.99
4110	Sky Rangers® R/C Jet <i>New</i>	99.99
4115	Sky Rangers® Pee Wee Flyer <i>New</i>	39.99
8300	Kick Dis™ Power Puck	49.99
9117	Spicy Wings™ Electric Plane Asst.	18.49
ESTES AIR™ ROCKET SETS		
1877	HL-X150™	39.99
1880	GL-X200™	43.99
ROCKET POWERED RACE SETS		
2040	Red Menace Dragster (*) <i>New</i>	29.99
2041	Blue Storm Dragster (*) <i>New</i>	29.99
2042	Green Mantis Dragster (*) <i>New</i>	29.99
2046	Drag-On Tuner (**) <i>New</i>	29.99
2047	Gearzilla Tuner (**) <i>New</i>	29.99
2048	Stammural Tuner (**) <i>New</i>	29.99
MODEL ROCKET STARTER SETS		
1406	1406 Alpha III™	19.99
1407	Stars & Stripes™	31.49
1431	Mini Super Shot™	18.89
1434	MaxTrax™	41.99
1474	Mega Maxx™	39.44
1825	Patriot™	29.99
1827	Starship™	29.99
1848	Snap Shot™ <i>New</i>	39.99
MINI-ENGINE MODEL ROCKET KITS		
0802	Quark™	4.79
0803	Bandito™ <i>New</i>	5.99
0804	Firehawk™ <i>New</i>	5.99
0806	Firestreak SST™ <i>New</i>	5.99
0810	220 Swift™ <i>New</i>	3.49
0834	X-Ray™	7.69
0886	Gnome™	7.69
1202	Mini Meanie™	3.99

Prod. No.	Description	Price Each
MINI-ENGINE MODEL ROCKET KITS (continued)		
1203	Freaky Flyer™	3.99
1847	Cruise Missile™	12.59
STANDARD AND D ENGINE MODEL ROCKET KITS		
1225	Alpha®	10.99
1256	Alpha III®	14.29
1260	No. 2 Estes Sky Writer™	7.69
1261	Baby Bertha™	6.59
1262	Cosmic Cobra™	8.99
1292	Wizard™	7.69
1295	Mean Machine™	24.99
1300	Blue Ninja™	14.29
1301	StormCaster™	12.59
1302	CC Express™	13.29
1380	Phoenix™	31.49
1381	Yankee™	7.69
1382	Comanche-3™	18.69
1807	Snitch™	12.59
1942	SR-71 Blackbird™ <i>New</i>	17.99
1948	Big Bertha®	16.29
1949	Viking™	7.29
1960	Nova Payloader™	16.79
2053	GBU-24 Paveway III™ <i>New</i>	10.99
2054	Python 4 ASRAAM™ <i>New</i>	10.99
2055	BLU-97B Cluster Bomb™ <i>New</i>	10.99
2056	U.S. Army Patriot M-104 <i>New</i>	10.99
2075	A.R.V. Condor™	18.89
2092	Mongoose™	14.29
2109	Renegade™ <i>New</i>	14.99
2110	Outlander™ <i>New</i>	19.99
2136	Gemini DC™	16.79
2139	Fat Boy™	16.79
2157	Apollo 11 Saturn V	99.99
2158	AGM-57X Heatseeker™	13.69
2162	Big Daddy™	25.79
2167	Mercury Redstone	30.49
2170	Star Dart™	10.49

ESTES 2004 RETAIL PRICE LIST



Prod. No.	Description	Price Each
STANDARD AND D ENGINE MODEL ROCKET KITS (continued)		
2171	Sizzler®	10.49
2172	Monarch™	14.29
2175	Nemesis™	15.29
2178	Hi-Flier™	5.29
2179	Guardian™	10.49
2180	Chrome Domes™ Silver Series	10.49
2181	Chrome Domes™ Gold Series	10.49
2182	Wacky Wiggler™	12.59
2183	Shuttle Xpress™	13.69
2184	Meteor Masher™	13.69
2185	Screamin' Mini™	13.69
7000	Bull Pup 12D™	13.69
D AND E ENGINE MODEL ROCKET KITS		
1950	Eliminator™	24.29
1951	Executioner™	43.99
1952	V-2	59.99
MODEL ROCKET R/C GLIDERS		
2201	T-25 Centurian™	139.99
MODEL ROCKET MINI-ENGINES		
1502	1/4A3-3T (4-each)	6.59
1503	1/2A3-2T (4-each)	6.59
1504	1/2A3-4T (4-each)	6.59
1505	A10-PT Race Car Engine <i>New</i> (4-each)	6.59
1507	A3-4T (4-each)	6.59
1511	A10-3T (4-each)	6.59
MODEL ROCKET STANDARD AND D ENGINES		
1593	1/2A6-2 (3-each)	6.59
1596	A8-3 (3-each)	6.59
1599	A8-5 (3-each)	6.59
1601	B4-2 (3-each)	7.09
1602	B4-4 (3-each)	7.09
1605	B6-2 (3-each)	7.09
1606	B6-4 (3-each)	7.09
1607	B6-6 (3-each)	7.09
1608	B6-0 (3-each)	7.09

Prod. No.	Description	Price Each
MODEL ROCKET STANDARD AND D ENGINES (continued)		
1613	C6-3 (3-each)	7.79
1614	C6-5 (3-each)	7.79
1615	C6-7 (3-each)	7.79
1616	C6-0 (3-each)	7.79
1621	C11-0 (3-each)	9.59
1622	C11-3 (3-each)	9.59
1623	C11-5 (3-each)	9.59
1624	C11-7 (3-each)	9.59
1665	D12-0 (3-each)	11.49
1666	D12-3 (3-each)	11.49
1667	D12-5 (3-each)	11.49
1668	D12-7 (3-each)	11.49
1669	D11-P (3-each)	11.49
1672	Blast-Off® Flight Pack (24 pk)	49.99
MODEL ROCKET E ENGINES		
1673	E9-4 (3-each)	16.49
1674	E9-6 (3-each)	16.49
1675	E9-8 (3-each)	16.49
1676	E9-P (3-each)	16.49
MODEL ROCKET ACCESSORIES/PARTS		
1463	Designer's Special™	57.79
2230	E™ Launch Controller	29.99
2234	Command Control™ Launch Controller	54.99
2236	Porta-Pad® E Launch Pad	29.99
302215	Porta-Pad® II Launch Pad	23.99
302220	Electron Beam® Launch Controller	26.99
302227	Tube Marking Guide	8.99
302232	AltTrak™ Altitude Tracker	23.99
302233	Emergency Repair Kit	11.59
302241	Blast Detector Plate	5.29
302243	1/8" Two-Piece Launch Rod	10.79
302244	3/16" Two-Piece Maxi™ Rod	12.99
302264	12" Parachute	5.29
302267	18" Parachute	5.99
302271	24" Parachute	6.29
302274	Recovery Wadding	4.49

ESTES 2004 RETAIL PRICE LIST



Prod. No.	Description	Price Each
MODEL ROCKET ACCESSORIES/PARTS (continued)		
302278	Shock Cords & Mount Pack	3.89
302301	Model Rocket Igniters (6 pk)	4.49
302320	Launch Lug Pack (14 Asst.)	5.59
303084	BT-5 Body Tube (4 pk)	5.79
303085	BT-20 Body Tube (4 pk)	6.59
303086	BT-50 Body Tube (3 pk)	6.59
303087	BT-55 Body Tube (3 pk)	7.39
303089	BT-60 Body Tube (3 pk)	8.19
303090	BT-80 Body Tube (2 pk)	8.19
303143	Engine Hook Accessory Pack (6 Asst.)	4.79
303158	Regular Engine Mount Kit	7.39
303159	D & E Engine Mount Kit	9.29
303160	NC-5 Nose Cone (5 pk)	8.19
303161	NC-20 Nose Cone (4 pk)	8.19
303162	NC-50 Nose Cone (5 pk)	8.19
303163	NC-55 Nose Cone (4 pk)	8.99
303164	NC-56 Nose Cone (4 pk)	8.19
303165	NC-80a Nose Cone (4 pk)	8.19
303166	NC-80b Nose Cone (1 pk)	5.79
303196	Large Tube Coupler Pack (7 Asst.)	8.19

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.
QUANTITIES OF SOME PRODUCTS ARE LIMITED.

(*) Sold as the 9114 Assortment
(**) Sold as the 9115 Assortment
30 Prefix = Product has English, French and German packaging and instructions.

Estes-Cox Corp. is an equal opportunity employer.

Prod. No.	Description	Price Each
EDUCATOR BULK PACKS		
1750	Gnome™ (12 pk)	52.89
1751	Alpha III® (12 pk)	98.29
1754	Wizard™ (12 pk)	58.79
1755	Viking™ (12 pk)	48.69
1756	Alpha ® (12 pk)	82.29
1764	Generic E2X® (12 pk)	88.19
1778	Estes Air™ Rocket (30 pk)	185.99
1791	Polaris™ (12 pk)	89.99
1781	A8-3 Engines (24 pk)	52.19
1783	B6-4 Engines (24 pk)	53.29
1784	B6-0/B6-6 Engines (12 ea. per pk)	59.99
1788	1/2A3-4T Engines (24 pk)	42.99
1789	C6-5 Engines (24 pk)	61.99

New!
BOMBS AWAY!
BLU-97B CLUSTER BOMB™

New!
DESERT STORM VETERAN!
U.S. ARMY PATRIOT M-104

SKILL LEVEL 1 ROCKET KITS

HARKEE™ 1381
A rocket with All-American performance - screams to 1400 ft. (427 m) altitude! Comes with cool self-adhesive decals, for that red, white and blue look.
SPECS: Length: 11 in. (27.9 cm);
Dia.: 0.74 in. (18.8 mm); **Wt.:** 0.4 oz. (12 g);
Recovery: Streamer;
Fins: Die cut balsa;
Max. Altitude: 1400 ft. (427 m);
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

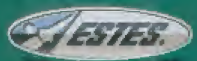
BIG BERTHA™ 1948
Burly, big and beautiful! Over the decades this is the first big (two feet tall) rocket for many modelers. Slow, realistic lift-offs from this true classic.
SPECS: Length: 24 in. (61 cm);
Dia.: 1.64 in. (41.6 mm); **Wt.:** 2.2 oz. (62 g);
Recovery: 18 in. (46 cm);
Fins: Die cut balsa;
Max. Altitude: 500 ft. (152 m);
Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5

VIKING™ 1949
Fantastic rocket with 48 possible fin configurations. Features die cut card fins, decals and streamer recovery. Super high flights.
SPECS: Length: 12.1 in. (30.7 cm);
Dia.: 0.74 in. (18.8 mm); **Wt.:** 0.6 oz. (17 g);
Recovery: Streamer;
Fins: Die cut card;
Max. Altitude: 1470 ft. (448 m);
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

NOVA PAYLOADER™ 1960
Clear payload capsule, lightweight design with balsa fins and high altitude performance combine to make this a great cargo carrying rocket!
SPECS: Length: 21.1 in. (53.6 cm);
Dia.: 0.98 in. (24.9 mm); **Wt.:** 1.3 oz. (38 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 1000 ft. (305 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

BLU-97B CLUSTER BOMB™ 2055
Bombs away with the BLU-97B Cluster Bomb™! Drops four cluster bombs in flight. This is a 1:6.4 scale replica of the U.S. Air Force anti-armor/anti-personnel weapon.
SPECS: Length: 14.4 in. (36.6 cm);
Dia.: 2.217 in. (56.3 mm); **Wt.:** 3.1 oz. (86.9 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 390 ft. (119 m);
Recommended Engines: B4-2, B6-2, C6-3

U.S. ARMY PATRIOT M-104 2056
A classic 1:10 scale model rocket of the desert hero and mother of all air defense missiles. Based on the U.S. Army's M-104 surface-air missile. Blasts 600 feet high!
SPECS: Length: 21.3 in. (54.1 cm);
Dia.: 1.637 in. (41.6 mm); **Wt.:** 1.95 oz. (55 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5



SKILL LEVEL 1 ROCKET KITS

GREAT
FOR
1ST TIME
STAGING!



FAT BOY™

SCREAMS TO
OVER
2000 FT.!
(622 m)



STAR DART™

SHREDS THE
SKIES OVER
2000 FT.
HIGH!
(622 m)



SIZZLER™



HI-FLITER®



MONARCH™

SKILL LEVEL 1 ROCKET KITS

MONGOOSE™

2092

Perfect first two-stage rocket! Super quick to build with high altitude performance - over 1600 ft. (488 m)!

SPECS: Length: 26.5 in. (67.3 cm);

Dia.: 0.98 in. (24.9 mm); Wt.: 2.3 oz. (65 g);

Recovery: Booster-Tumble; Main Stage-Streamer;

Fins: One piece plastic molded;

Max. Altitude: 1600 ft. (488 m);

Recommended Engines: Single Stage - A8-3, B4-4, B6-4, C6-5; Two Stage: Booster - B6-0, C6-0; 2nd Stage - A8-5, B6-6, C6-7

FAT BOY™

2139

Fat Boy!™...and proud of it! Bullets its way to over 300 ft. (91 m) in altitude and recovers with a parachute.

SPECS: Length: 12.9 in. (32.8 cm);

Dia.: 2.6 in. (66 mm); Wt.: 3.0 oz. (85 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 325 ft. (99 m);

Recommended Engines: B4-2, B6-2, C6-3

STAR DART™

2170

This rocket flies through the air with amazing speed! It can hit altitudes over 2000 ft. (607 m)!

SPECS: Length: 12.75 in. (32.4 cm);

Dia.: 0.74 in. (18.8 mm); Wt.: 1.0 oz. (27.2 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 2010 ft. (613 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

SIZZLER®

2171

Burn up the sky with the Sizzler®! This rocket scorches through the atmosphere with flights over 2000 ft. (607 m)!

SPECS: Length: 11.75 in. (29.8 cm);

Dia.: 0.74 in. (18.8 mm); Wt.: 0.8 oz. (23.8 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 2040 ft. (622 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

MONARCH™

2172

The Monarch™ has a unique fin configuration that gives extra stability during flight. This regal rocket flies over 1200 ft. (366 m).

SPECS: Length: 17.25 in. (43.8 cm);

Dia.: 0.98 in. (24.9 mm); Wt.: 1.8 oz. (49.6 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 1225 ft. (373 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

HI-FLITER®

2178

Keep an eye on this one! The Hi-Fliter® rocket is a high altitude rocket. It soars over 1600 ft. (488 m), and is recovered by a bright orange streamer.

SPECS: Length: 12 in. (30.5 cm);

Dia.: 0.74 in. (18.8 mm); Wt.: 0.82 oz. (23.2 g);

Recovery: Streamer;

Fins: Die cut balsa;

Max. Altitude: 1690 ft. (515 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, C6-5, C6-7

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

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SKILL LEVEL 2 ROCKET KITS

- Requires more skill in building and painting
- Assembly time may take a complete day
- Engines and launch equipment - sold separately

OVER 6 FT.
LONG!
(1.8 m)

HIGH
FLYING
2
STAGE



MEAN MACHINE™

MILITARY
SCALE AIR-AIR
MISSILE!

New!



PYTHON 4™
ASRAAM

New!



GBU-24 PAVEWAY III™

MILITARY
SCALE SMART
BOMB!

DEPLOYS
2
DRONES AT
APOGEE!



R.A.V. CONDOR™

REAR
EJECTION
PARACHUTE
SYSTEM!



GERMINI DC™

SKILL LEVEL 2 ROCKET KITS

MEAN MACHINE™ 1295

Over six ft. (1.8 m) of rocket with kick-in-the-pants "D" power to boot. Its long, lean looks and great soaring flights make this one of our most popular rockets.

SPECS: Length: 78.8 in. (200.2 cm);
Dia.: 1.64 in. (41.7 mm); **Wt.:** 5.8 oz. (164 g);
Recovery: 24 in. (61 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: D12-S ONLY
Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

CC EXPRESS™ 1302

The CC Express™ is a high-flying, two-stage rocket powered by "C11" engines. It can also be flown using "D" engines. It soars to 1790 ft. (546 m) in the air.

SPECS: Length: 28.38 in. (72.1 cm);
Dia.: 1.33 in. (33.7 mm); **Wt.:** 2.7 oz. (75.3 g);
Recovery: 18 in. (46 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 1790 ft. (546 m);
Recommended Engines: Single Stage - C11-5, D12-5; Two-Stage: Booster - C11-0, D12-0; 2nd Stage - C11-5, C11-7, D12-7
Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

GBU-24 PAVEWAY III™ 2053

The GBU-24 Paveway III™ is a 1:8 scale rocket modeled after the laser-guided smart bomb used by the U.S. Air Force and Navy. Includes authentic decals and flies over 600 feet high!

SPECS: Length: 21.3 in. (54.1 cm);
Dia.: 1.325 in. (33.7 mm); **Wt.:** 2.3 oz. (65.5 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 665 ft. (203 m);
Recommended Engines: A8-3, B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

PYTHON 4™ ASRAAM 2054

The Python 4™ is 1:5 scale version of the fourth generation Advanced Short Range Air-Air Missile. Includes realistic decals and flies 500 feet into the sky!

SPECS: Length: 24 in. (61 cm);
Dia.: 1.325 in. (33.7 mm); **Wt.:** 2.8 oz. (79.3 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 500 ft. (152 m);
Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

R.A.V. CONDOR™ 2075

Atmospheric research vehicle of the next century! At apogee, two drones detach for a gliding return to Earth. Booster returns on a streamer.

SPECS: Booster Length: 18.5 in. (47.0 cm);
Drone Length: 6.1 in. (15.5 cm);
Booster Dia.: 0.98 in. (24.9 mm);
Drone Wingspan: 10.8 in. (27.4 cm); **Booster Wt.:** 1.1 oz. (32 g);
Drone Wt.: 0.5 oz. (14 g);
Recovery: Drones-Glider; Booster-Streamer;
Fins: Die cut balsa;
Max. Altitude: 700 ft. (213 m);
Recommended Engines: B4-2, B6-2, C6-3

GERMINI DC™ 2136

Twin parachutes are rear-ejected from the side pods on this stunning rocket. A great flier! A unique rocket!

SPECS: Length: 21.5 in. (54.6 cm);
Dia.: 0.98 in. (24.9 mm); **Wt.:** 3.4 oz. (95 g);
Recovery: Dual 12 in. (30 cm) Parachutes;
Fins: Die cut balsa;
Max. Altitude: 800 ft. (244 m);
Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

Every model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.



SKILL LEVEL 2 ROCKET KITS

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

**GREAT
FOR
1ST TIME
SCALE
MODELERS!**



BIG DADDY™



**MERCURY
REDSSTONE**



GUARDIAN™

**RELEASES
3 DEEP
SPACE
CLUSTER
BOMBS!**



METEOR MASHER™



NEMESIS™

**"WHISTLES"
THROUGH
THE AIR!**



SCREAMIN' MIMI™



BULL PUP 120™

SKILL LEVEL 2 ROCKET KITS

BIG DADDY™ 2162

Backed by the power of the mighty Estes "D" engine, this rocket is KING!

SPECS: Length: 19 in. (48.3 cm);
Dia.: 3.0 in. (76.2 mm); Wt.: 5.3 oz. (150 g);
Recovery: 24 in. (61 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 350 ft. (107 m);
Recommended Engines: C11-5, D12-3, D12-5
Requires 3/16 in. (5 mm) Max™ launch rod (302244)
- sold separately.

MERCURY REDSTONE 2167

Perfect for beginners in scale model rocket building. Include "Liberty Bell 7" decals commemorating the return of "Gus" Grissom's capsule that was lost at sea for 38 years.

SPECS: Length: 23.5 in. (59.7 cm);
Dia.: 1.6 in. (40.6 mm); Wt.: 3.0 oz. (84 g);
Recovery: 12 in. (30 cm) and 18 in. (46 cm) Parachutes;
Fins: Plastic molded;
Max. Altitude: 500 ft. (152 m);
Recommended Engines: B6-4, C6-3, C6-5

NEMESIS™ 2175

One of the most feared spaceships in the galaxy and a high flier too!

SPECS: Length: 16.25 in. (41.3 cm);
Dia.: 0.98 in. (24.9 mm); Wt.: 1.8 oz. (50 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 1225 ft. (373 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

GUARDIAN™ 2175

The Guardian™ rocket simulates a ground-to-air missile. This multi-finned guardian of the sky soars over 700 ft. (213 m).

SPECS: Length: 19.13 in. (48.6 cm);
Dia.: 1.33 in. (33.8 mm); Wt.: 2.4 oz. (68.6 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 723 ft. (220 m);
Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5

METEOR MASHER™ 2184

The Meteor Masher™ soars into the sky carrying 3 deep space cluster bombs.

SPECS: Length: 27 in. (68.6 cm);
Dia.: 1.33 in. (33.8 mm); Wt.: 4.0 oz. (113 g);
Recovery: Rocket - 12 in. (30 cm) Parachute; Bombs - Streamer Fins: Die cut balsa;
Max. Altitude: 490 ft. (149 m);
Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

SCREAMIN' MIMI™ 2185

Launch and listen to this amazing, screamin' rocket. The Screamin' Mimi™ rocket whistles while flying. It is powered by Estes C11 and D engines.

SPECS: Length: 25.5 in. (64.8 cm);
Dia.: 1.64 in. (41.7 mm); Wt.: 5.3 oz. (150.3 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 752 ft. (229 m);
Recommended Engines: C11-3; For Sound-D12-5, D12-7
Requires 3/16 in. (5 mm) Max™ launch rod (302244) - sold separately.

BULL PUP 120™ 7000

Sport scale version of the USAF AGM-12D Bull Pup. Plastic tail cone and authentic color decals! Great first scale model.

SPECS: Length: 15.6 in. (39.6 cm);
Dia.: 1.33 in. (33.8 mm); Wt.: 1.8 oz. (51 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 675 ft. (206 m);
Recommended Engines: A8-3, B4-4, B6-4, C6-5

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SKILL LEVEL 3 ROCKET KITS

- The construction and flying of these kits require a higher level of skill.
- Assembly may take a couple of days.
- Booster and launch equipment sold separately.



PHOENIX™

3
STAGES!

COMANCHE-3™



SCALE MODEL
OF THE
WORLD'S
FASTEST JET!

Welcome
Back!



SR-71 BLACKBIRD™

New!

AWESOME
2
STAGE
LAUNCHES!



RENEGADE™

COOL
'CHUTE &
LANDER
RECOVERY!



OUTLANDER™

New!



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SKILL LEVEL 3 ROCKET KITS

PHOENIX™ 1380

Huge 1/9th scale model of the AIM-54 air-to-air Phoenix missile. "D" engine powered.

SPECS: Length: 30 in. (76.2 cm);
Dia.: 2.6 in. (66 mm); **Wt.:** 6.6 oz. (187 g);
Recovery: 18 in. (46 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 350 ft. (107 m);
Recommended Engines: D12-3 ONLY. Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

COMANCHE-3™ 1382

A "D" engine powered booster stage rocket that roars to ultra high altitudes - over half a mile (805 m) high!

SPECS: Length: 41 in. (104.1 cm);
Dia.: 0.98 in. (24.9 mm); **Wt.:** 2.1 oz. (59 g);
Recovery: Booster-Tumble; Main Stage-Two Streamers;
Fins: Die cut balsa;
Max. Altitude: 2660 ft. (811 m);
Recommended Engines: Single Stage Flights - A8-3, B4-4, B6-4, C6-5; Three Stage Flights - Booster: C11-0, D12-0; Second Stage: B6-0, C6-0; Third Stage: B6-6, C6-7. Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

SR-71 BLACKBIRD™ 1942

Build and fly the world's fastest jet! This SR-71 Blackbird™ is a scale model and includes authentic looking "Blackbird Skin", plastic components and decals.

SPECS: Length: 19.0 in. (48.3 cm);
Dia.: 0.976 in. (24.8 mm); **Wt.:** 3.2 oz. (90.7 g);
Recovery: 18 in. (46 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 600 ft. (183 m);
Recommended Engines: B4-2, B6-2, B6-4, C6-5

RENEGADE™ 2109

Going staged is awesome! Witness a magnificent lift-off with the Renegade™. It's over two feet tall and can be launched as a single stage or two-stage rocket.

SPECS: Length: 26.6 in. (67.6 cm);
Dia.: 1.637 in. (41.6 mm); **Wt.:** 4.3 oz. (120.9 g);
Recovery: 12 in. (30 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 850 ft. (260 m);
Recommended Engines: Single Stage - A8-3, B4-4, B6-4, C6-5; Two-Stage: Booster - B6-0, C6-0; 2nd Stage - A8-5, B6-4, B6-6, C6-5, C6-7

OUTLANDER™ 2110

Get ready to explore the outer rim of the galaxy with the Outlander™. It's stellar-looking design and decals complement the unique 'Chute & Lander recovery system.

SPECS: Length: 12.5 in. (31.8 cm);
Dia.: 4.375 in. (111.1 mm); **Wt.:** 4.2 oz. (120.2 g);
Recovery: 18 in. (46 cm) Parachute;
Fins: Die cut balsa;
Max. Altitude: 200 ft. (61 m);
Recommended Engines: B4-2, B6-2, C6-3



"E" ENGINE POWERED KITS



EXECUTIONER™

ELIMINATOR™

T-25 CENTURIAN™

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"E" ENGINE POWERED KITS

- Estes "E" engines - sold separately.
- For ages 18 and up. Adult supervision required for ages under 18.
- Requires Estes Porta-Pad® E Launch Pad (2238) and E™ Launch Controller (2230) for use - sold separately.
- Can also be flown on Estes "D" engines.

ELIMINATOR™

1950

Reach new heights with this quick-build, high-flying sport rocket. The Eliminator™ comes with colored body tubes, nose cone and fin unit, so no painting is required.

SPECS: Skill Level: 2 Length: 30.8 in. (78.2 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 4.6 oz. (130 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1420 ft. (433 m);

Recommended Engines: C11-5, D12-5, D12-7, E9-6, E9-8

EXECUTIONER™

1951

Huge rocket stands over 3 ft. (0.9 m) tall! The Executioner™ comes with laser cut fins and a slotted body tube for precise fin alignment.

SPECS: Skill Level: 3 Length: 38.5 in. (97.8 cm);

Dia.: 2.6 in. (66.0 cm); **Wt.:** 8.1 oz. (230 g);

Recovery: 24 in. (61 cm) Parachute;

Fins: Laser cut wood;

Max. Altitude: 590 ft. (180 m);

Recommended Engines: D12-3, E9-4, E9-6

V-2

352

Beautiful 1/19th scale model of a German ground-to-ground ballistic missile. Comes with blow molded nose cone and tail cone and vacuum formed fins.

SPECS: Skill Level: 4; Length: 33.5 in. (85.1 cm);

Dia.: 3.94 in. (100 mm); **Wt.:** 12.05 oz. (354 g);

Recovery: Two 24 in. (61 cm) Parachutes;

Fins: Vacuum formed plastic;

Max. Altitude: 300 ft. (91 m);

Recommended Engines: D12-3, E9-4

T-25 CENTURIAN™

2201

Experience the thrill of combining boost glider technology with R/C aerobatics. The T-25 Centurian™ is a twin tail sailplane that rockets to maximum soaring heights of close to 600 ft. (183 m). The T-25 Centurian™ comes almost ready to fly with factory built and covered wings, tail and fuselage, with linkage installed. Requires 2-Channel R/C system - sold separately.

SPECS: Wingspan: 34.5 in. (87.6 cm);

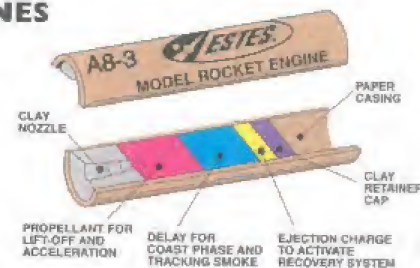
Recommended Engines: D11-P, E9-P

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

ESTES MODEL ROCKET ENGINES

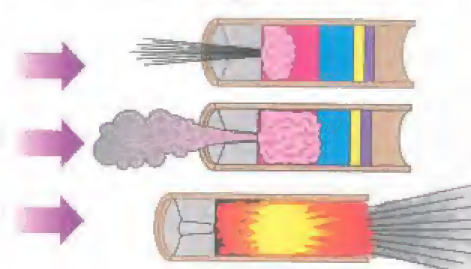
The famous model rocket engines that made model rocketry the great activity it is today. Estes model rocket engines have been proven consistent and reliable in more than 300,000,000 launches.

- The concept of a factory assembled model rocket engine is the foundation of this scientific and educational activity!
- 3% of all Estes engines are static-tested at the factory for reliability and adherence to performance specifications.
- All engines comply with the codes of the National Fire Protection Association and are certified by the National Association of Rocketry.



HOW DOES A MODEL ROCKET ENGINE WORK?

1. When engine is ignited, it produces thrust and boosts rocket into sky.
2. After propellant is used up, delay is activated, producing tracking smoke and allowing rocket to coast.
3. After delay, ejection charge is activated, deploying recovery system.



WHAT SIZES ARE AVAILABLE?

Estes engines are available in a wide variety of sizes and power levels:

TYPE TOTAL	IMPULSE	ENGINE TYPES
1/4A	0.313 - 0.625	Mini
1/2A	0.626 - 1.25	Standard, Mini
A	1.26 - 2.50	Standard, Mini
B	2.51 - 5.00	Standard
C6	5.01 - 10.00	Standard
C11	5.01 - 10.00	"D" Size
D	10.01 - 20.00	"D" Size
E	20.01 - 30.00	"E" Size

WHAT DO THE DIFFERENT COLOR ENGINES MEAN?

Each type of engine is printed in a different color:

- **Single Stage - Green**
- **Upper Stage - Purple** (Upper stage engines can be used as single stage engines in lightweight rockets.)
- **Booster - Red** (Booster engines contain no delay or ejection charge.)
- **Plugged - Blue** (Plugged engines are used for R/C gliders and contain no delay or ejection charge.)

Each engine has a letter-number-number code. (e.g., B6-4)

Letter: B
Number: 6
Number: 4



B = TOTAL IMPULSE

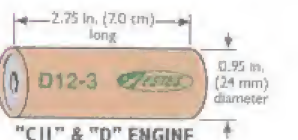
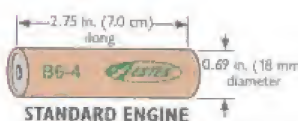
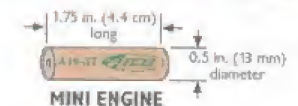
This letter is the total power (in Newton-seconds) produced by the engine. Each succeeding letter has up to twice the total power as the previous letter. (Example: "B" engines have up to twice the power of "A" engines, which results in approximately twice the altitude the rocket will reach.)

6 = AVERAGE THRUST

This number shows the engine's average push or how fast the engine powers the rocket to go. The higher the number, the faster the speed. It is measured in Newtons (4.45 Newtons = 1 lb.).

4 = TIME DELAY

This number gives you the time delay in seconds between the end of the thrust phase and ignition of the ejection charge. Engine types ending in "0" have no time delay or ejection and are used for booster stages and special purposes only.



ESTES ENGINE CHART

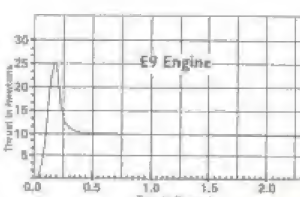
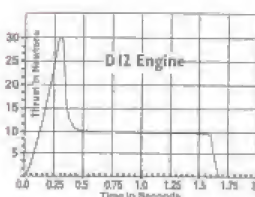
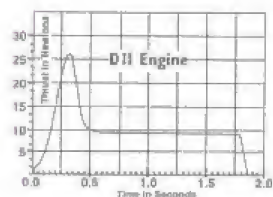
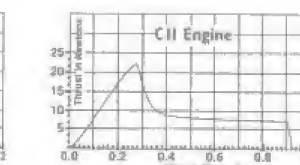
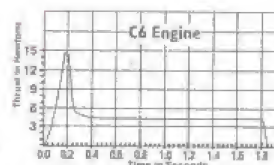
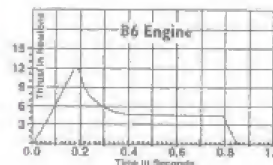
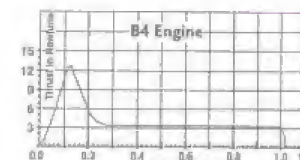
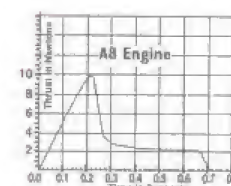
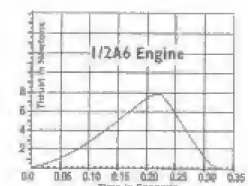
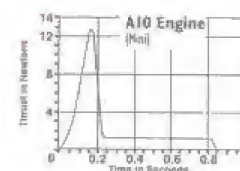
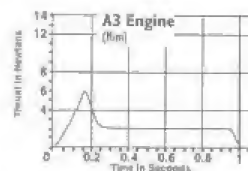
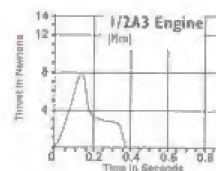
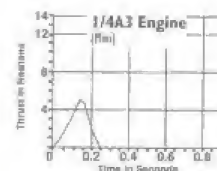
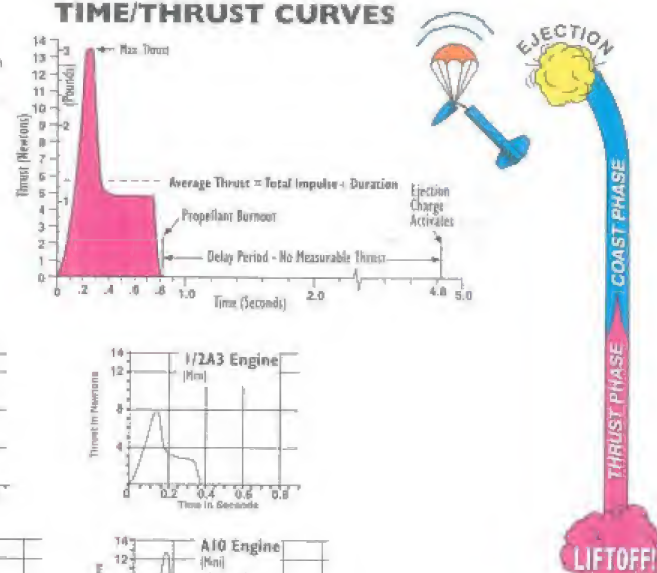
- Delays have a tolerance of plus or minus 10% or 1 second, whichever is greater.
- All Estes engines come complete with igniters and patented igniter plugs (Pat. No. 5,410,966 and 5,509,354). The Estes Igniter Plug makes engine ignition extremely reliable.
- Do not fly a rocket/engine combination whose lift-off weight exceeds the recommended maximum lift-off weight.

Prod. No.	Engine Type	Total Impulse	Time Delay	Max. Lift Wt.		Max. Thrust		Thrust Duration	Initial Weight		Propellant Weight		
		N-sec	Sec.	Oz.	g	Newtons	Lbs.	Sec.	Oz.	g	Oz.	g	
SINGLE STAGE ENGINES (GREEN LABEL)													
1502	1/4A3-3T	0.625	3	1.0	28	4.9	1.1	0.25	0.20	5.6	0.03	0.85	
1503	1/2A3-2T	1.25	2	2.0	57	8.3	1.9	0.3	0.20	5.6	0.06	1.75	
1507	A3-4T	2.50	4	2.0	57	6.8	1.5	0.6	0.27	7.6	0.12	3.50	
1511	A10-3T	2.50	3	3.0	85	13.0	2.9	0.8	0.28	7.9	0.13	3.78	
1593	1/2A6-2	1.25	2	2.0	57	8.9	2.0	0.3	0.53	15.0	0.06	1.56	
1598	A8-3	2.50	3	3.0	85	10.7	2.4	0.5	0.57	16.2	0.11	3.12	
1601	B4-2	5.00	2	4.0	113	13.2	3.0	1.1	0.70	19.8	0.29	8.33	
1602	B4-4	5.00	4	3.5	99	13.2	3.0	1.1	0.74	21.0	0.29	8.33	
1605	B6-2	5.00	2	4.5	127	12.1	2.7	0.8	0.68	19.3	0.22	6.24	
1606	B6-4	5.00	4	4.0	113	12.1	2.7	0.8	0.71	20.1	0.22	6.24	
1613	C6-3	10.00	3	4.0	113	15.3	3.4	1.6	0.88	24.9	0.44	12.48	
1614	C6-5	10.00	5	4.0	113	15.3	3.4	1.6	0.91	25.8	0.44	12.48	
1622	C11-3	10.00	3	6.0	170	22.1	4.9	0.8	1.14	32.2	0.39	11.00	
1623	C11-5	10.00	5	5.0	142	22.1	4.9	0.8	1.18	33.3	0.39	11.00	
1666	D12-3	20.00	3	14.0	396	32.9	7.4	1.6	1.49	42.2	0.88	24.93	
1667	D12-5	20.00	5	10.0	283	32.9	7.4	1.6	1.52	43.1	0.88	24.93	
1673	E9-4	30.00	4	15.0	425	25.0	5.6	2.8	2.00	56.7	1.27	35.80	
1674	E9-6	30.00	6	12.0	340	25.0	5.6	2.8	2.00	56.7	1.27	35.80	
UPPER STAGE ENGINES (PURPLE LABEL)													
1504	1/2A3-4T	1.25	4	1.0	28	8.3	1.9	0.3	0.21	6.0	0.06	1.75	
1599	A8-5	2.50	5	2.0	57	13.3	3.0	0.5	0.62	17.6	0.11	3.12	
1607	B6-6	5.00	6	2.5	71	12.1	2.7	0.8	0.78	22.1	0.22	6.24	
1615	C6-7	10.00	7	2.5	71	15.3	3.4	1.6	0.95	26.9	0.44	12.48	
1624	C11-7	10.00	7	4.0	113	22.1	4.9	0.8	1.22	34.5	0.39	11.00	
1668	D12-7	20.00	7	8.0	226	32.9	7.4	1.6	1.55	44.0	0.88	24.93	
1675	E9-8	30.00	8	10.0	283	25.0	5.6	2.8	2.00	56.7	1.2	35.80	
BOOSTER STAGE ENGINES (RED LABEL)													
1608	B6-0	5.00	None	4.0	113	12.1	2.7	0.8	0.58	16.4	0.22	6.24	
1616	C6-0	10.00	None	4.0	113	15.3	3.4	1.6	0.80	22.7	0.44	12.48	
1621	C11-0	10.00	None	6.0	170	22.1	4.9	0.8	0.98	27.8	0.39	11.00	
1665	D12-0	20.00	None	14.0	396	32.9	7.4	1.6	1.44	40.9	0.88	24.93	
PLANNED ENGINES - FOR USE WITH RACING POWERFET RACERS & RC ROCKETS (BLUE LABEL)													
1505	A10-PT	2.50	None	3.0	85	13.0	2.9	0.8	0.26	7.4	0.13	3.78	
1669	D11-P	20.00	None	16.0	453	27.6	6.2	1.8	1.55	44.0	0.88	24.93	
1676	E9-P	30.00	None	15.0	425	25.0	5.6	2.8	2.0	56.0	1.27	35.80	

The data listed above is from randomly chosen production samples.
NOTE: The "T" designates a mini-engine.

TIME/THRUST CURVES

- Time/thrust curves are representative of random production samples.
- Graphs are not drawn to the same scale.



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ESTES MODEL ROCKET ACCESSORIES

DESIGNER'S SPECIAL 1463
Contains parts to design and build 7-8 of your own rockets.

BLAST-OFF® FLIGHT PACK 1672
Includes 6 each of A8-3, B6-4, C6-3, C6-5 engines, 30 igniters and 75 sheets of recovery wadding

E™ LAUNCH CONTROLLER 2230
Comes complete with safety key and 30 ft. (9 m) of cable. Requires 4 "AA" alkaline batteries - not included. Adult supervision is required for anyone under 18 when launching "E" engine powered rockets.

COMMAND CONTROL™ LAUNCH CONTROLLER 2234
The ultimate launch controller for model rockets. Comes with 30 ft. (9 m) of heavy duty cable, LED launch indicators and audible alerts. Power from one or two 7.2 volt NiCd battery packs (NiCds not included). Includes an igniter and igniter plug storage compartment.

PORTA-PAD® E LAUNCH PAD 2238
Quick assembly - no glue or tools required. Includes a 1/4 in. (6 mm) launch rod, but can accommodate a 3/16 in. (5 mm) Maxi™ launch rod - not included. Adult supervision required for anyone under 18 when launching "E" engine powered rockets.

PORTA-PAD® II LAUNCH PAD 302215
Quick assembly - no glue or tools required! Comes complete with blast deflector and standoff, two-piece 1/8 in. (3 mm) launch rod, safety cap and key. Porta-Pad® II can accommodate a 3/16 in. (5 mm) Maxi™ launch rod - not included.

ELECTRON BEAM® LAUNCH CONTROLLER 302220
Launch controller comes complete with safety key and 17 ft. (5.2 m) of cable. Requires four "AA" alkaline batteries - not included.

TUBE MARKING GUIDE 302227
Easy way to mark fin and launch lug placement lines. Also includes a fin gluing jig.

ALITRAK™ 302232
Measure altitude with this easy to use device. Follow the rocket in the sights to apogee, release the trigger to lock the reading.

EMERGENCY REPAIR KIT 302233
Contains: shock cord mounts, tape rings, safety key, recovery wadding, 12 in. (30 cm) assembled parachute, shroud line, launch lugs, shock cords and launch rod safety cap.

BLAST DEFLECTOR PLATE 302241
Replaces that worn-out deflector.

1/8 in. (3 mm) TWO-PIECE LAUNCH ROD 302243
Replacement rod; ideal for most rockets.

3/16 in. (5 mm) TWO-PIECE MAXI™ LAUNCH ROD 302244
Launch rod with extra strength and stiffness for larger rockets.

12 in. (30 cm) PARACHUTE (Assembled) 302264

18 in. (46 cm) PARACHUTE (Assembled) 302267

24 in. (61 cm) PARACHUTE (Assembled) 302271

BODY TUBES

High quality spiral wound paper tubes. Use tube couplers to connect tubes of the same diameter. Four tubes per package with BT-5 & BT-20, three per package with BT-50, BT-55, and BT-60 & two per package in BT-80.

NOSE CONE ASSORTMENTS

Each package of nose cones contains a variety of shapes. Some are one piece, others two-piece. All have eyelets for shock cord and shroud line attachments.

RECOVERY WADDING 302274
Flame resistant wadding protects recovery system. Required in most Estes® rockets. Contains 75 sheets - enough for about 18-25 flights!

SHOCK CORDS & MOUNT PACK 302278
Contains two 1/8 in. x 18 in. (3 mm x 450 mm), and one 1/4 in. x 36 in. (6 mm x 910 mm) elastic shock cords (enough for four shock cords). Includes mounts and instructions.

MODEL ROCKET IGNITERS 302301
Dependable, easy-to-use Estes® igniters in a convenient six pack. It is always a good idea to have a few spares.

LAUNCH LUG PACK 302320
Contains eight 1/8 in. (3 mm), four 3/16 in. (5 mm) and two 1/4 in. (6 mm) launch lugs.

BT-5 BODY TUBE 303084
Includes four 18 in. (45.7 cm) BT-5 body tubes.

BT-20 BODY TUBE 303085
Includes four 18 in. (45.7 cm) BT-20 body tubes.

BT-50 BODY TUBE 303086
Includes three 18 in. (45.7 cm) BT-50 body tubes.

BT-55 BODY TUBE 303087
Includes three 18 in. (45.7 cm) BT-55 body tubes.

BT-60 BODY TUBE 303089
Includes three 18 in. (45.7 cm) BT-60 body tubes.

BT-80 BODY TUBE 303090
Includes two 14.2 in. (36.1 cm) BT-80 body tubes.

ENGINE HOOK ACCESSORY PACK 303143
Hooks fit mini-engines (one), regular and "D" engines (three) and "E" engines (two). Includes spacer for "E" engine hooks.

REGULAR ENGINE MOUNT KIT 303158
Fits BT-50, 55, 56 & 60 tubes. Plus can be used to make a conversion mount for lightweight D powered rockets.

D AND E ENGINE MOUNT KIT 303159
Heavy duty engine mounts for "D" and "E" engines. Fits BT-55, 60 and 80 tubes.

NC-5 NOSE CONE ASSORTMENT (5 pack) 303160

NC-20 NOSE CONE ASSORTMENT (4 pack) 303161

NC-50 NOSE CONE ASSORTMENT (5 pack) 303162

NC-55 NOSE CONE ASSORTMENT (4 pack) 303163

NC-56 NOSE CONE ASSORTMENT (4 pack) 303164

NC-60A NOSE CONE ASSORTMENT (4 pack) 303165

NC-80B NOSE CONE (1 pack) 303168

LARGE TUBE COUPLER PACK 303196
Includes two couplers for BT-55, BT-56, and BT-60; One for BT-80.

Product Number	Body Tube Size	Inside Dimension in./mm	Outside Dimension in./mm	Length in./cm
303084	BT-5	0.518/13.2	0.544/13.8	18.0/45.7
303085	BT-20	0.710/18.0	0.736/18.7	18.0/45.7
303086	BT-50	0.950/24.1	0.976/24.8	18.0/45.7
303087	BT-55	1.283/32.6	1.325/33.7	18.0/45.7
303089	BT-60	1.595/40.5	1.637/41.6	18.0/45.7
303090	BT-80	2.588/65.7	2.600/66.0	14.2/36.1

ESTES ROCKETRY AND EDUCATION

FOR MORE DETAILS AND INFORMATION ON OUR MODEL ROCKET EDUCATIONAL SUPPLIES, SEE THE ESTES EDUCATOR™ CATALOG OR VISIT US AT: www.esteseducator.com

ESTES AIR® ROCKET CLASS PACK

(Pictured at right)

- Rockets COMPLETELY POWERED BY AIR!
- Includes Teacher's Hands-on Activity Guide
- Fulfill Many National Education Standards

CLASS PACK INCLUDES:

- 1 - Estes Air™ Pump & Launcher
- 1 - "Awesome Estes Air® Rocket Activities" - Teacher's Guide
- 1 - Estes Air® Launch Mat
- 30 - Estes Air® Rocket Kits
- 30 - Colorful Decal Sheets

1778

New!



ESTES AIR® ROCKET CLASS PACK

MODEL ROCKET BULK PACKS

12 rockets per pack, complete with 12 sets of instructions and extra parts.

E2X® SERIES

Gnome™ Bulk Pack (See page 11 for rocket description) 1750

Alpha III® Bulk Pack (See page 13 for rocket description) 1751

Generic E2X® Bulk Pack (Pictured at right) 1764

SKILL LEVEL 1

Wizard™ Bulk Pack (See page 17 for rocket description) 1754

Viking™ Bulk Pack (See page 19 for rocket description) 1755

Alpha® Bulk Pack (See page 17 for rocket description) 1756

SKILL LEVEL 2

Polaris™ Bulk Pack (Pictured at right) 1791



GENERIC E2X® BULK PACK 1764

POLARIS™ BULK PACK 1791

MODEL ROCKET ENGINE BULK PACKS

Includes 24 engines and igniter plugs, 30 igniters and a package of recovery wadding - 75 sheets. (Pictured below) See pages 29-31 for engine descriptions.

1/2A3-4T Bulk Pack 1788

A8-3 Bulk Pack 1781

B6-4 Bulk Pack 1783

B6-0/B6-6 Bulk Pack (12 each) 1784

C6-5 Bulk Pack 1789

Blast-Off® Flight Pack 1672

(Includes 6 each: A8-3, B6-4, C6-3, C6-5)

CURRICULA

Ignite the Imagination™ Curriculum Guide 2852

(Pictured below)

- For grades 5-8,

- Hands-on activities on model rockets and space.

- National Education Standards Incorporated.

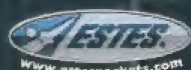
Additional Curricula, Technical Publications and Software available at: www.esteseducator.com



IGNITE THE IMAGINATION™ CURRICULUM GUIDE



MODEL ROCKET ENGINE BULK PACK

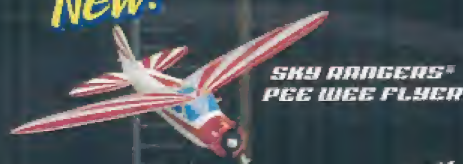


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New!



Only 14" Wingspan
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SKY RANGERS®
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BOUNCE
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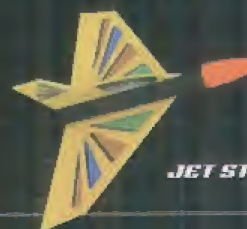
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ESTES SPECIALTY PRODUCTS

JET STIX™

1054

Pump it up and watch it fly! This sporty little glider comes with a small hand pump for hours of fun. Ages 8+.
SPECS: Wingspan: 7.5 in. (19 cm); Length: 6.25 in. (15.9 cm)

HYDROGEN FUEL ROCKET™

1076

The scientists at Estes have created a revolutionary technology that generates hydrogen fuel to launch a rocket into orbit! Blast a sleek rocket 200 feet into the sky using this innovative hydrogen fuel system! Includes fuel generation and launch system, remote launch controller and two ready-to-fly rockets. Ages 10+ with adult supervision for those under 12.
SPECS: Launch Platform Length: 20.5 in. (52 cm)
Rocket Length: 11 in. (28 cm); Recovery: Helicopter and Bounce; Max Altitude: 200 ft. (61 m)
Propellant: Hydrogen fuel from water
Power Supply: 6 "D" alkaline batteries - sold separately.

ESTES AIR® HL-X150™ HAND LAUNCH ROCKET SYSTEM

1077

The Estes Air® HL-X150™ blasts miniature air rockets up to 150 ft. (46 m) using the power of air. It comes with a pistol grip pump/launcher and two RTF miniature rockets.
SPECS: Rocket Length: 7 in. (17.8 cm); Max. Altitude: 150 ft. (46 m); Recovery: Bounce
Ages 10+ with adult supervision for those under 10.

ESTES AIR® GL-X200™ AIR ROCKET SYSTEM

1080

The GL-X200™ sends a rocket to awesome heights with a few pumps of air. Quick to set up and easy to operate. The GL-X200™ comes with two RTF rockets, pump and launcher. Ages 10+.
SPECS: Rocket Length: 10.5 in. (26.7 cm); Max. Altitude: 250 ft. (76 m); Recovery: Bounce

FLIGHT MASTER® RAVEN™

4014

FLIGHT MASTER® CONDOR™

4016

Wind 'em up...toss 'em into the wind...and let the flying adventures begin. The Flight Master® Raven™ and Condor™ are easy-to-build, scale-looking, rubber band powered airplanes that soar through the sky.
SPECS: Wingspan: 15 in. (38.1 cm); Length: 13 in. (33 cm)

SKY RANGERS® R/C JET

4110

The Sky Rangers® R/C Jet is tough, fast and simple enough to fly with one hand. Designed to be super smooth with wings made of virtually break-resistant foam. Includes a high-speed electric engine and 15-minute field charger. Perfect for flying at parks, schoolyards or athletic fields. Ages 10+.
SPECS: Wingspan: 33 in. (83.8 cm); Length: 13 in. (33 cm); Radio: Single Channel - Freq. 27.045 MHz;
Radio Range: 750 ft (305 m)
Requires 6 "AAA" alkaline batteries for the controller - sold separately

SKY RANGERS® PEE WEE FLYER

4115

The Sky Rangers® Pee Wee Flyer is small enough to fly in your backyard! This flying miniature R/C plane has a small, 14-inch wingspan and simple, push-button controller. Recharges in 60 seconds with its pocket-sized charger. Great for flying in backyard, parks or playgrounds. Ages 10+.
SPECS: Wingspan: 14 in. (35.6 cm); Length: 12.5 in. (31.8 cm); Radio: Single Channel - Freq. 27 MHz;
Radio Range: 200 ft (61 m)
Requires 1 - 9 Volt transistor alkaline battery for the transmitter and 6 "C" alkaline batteries for the charger - sold separately

KICK DIS™ POWER PUCK

8300

Play soccer, hockey, even bowling. The Kick Dis™ Power Puck floats on a cushion of air and is surrounded by a tough bumper. Play indoors or out. Includes rechargeable NiCd battery and a wall mount charger.
SPECS: Dia.: 7.5 in. (19.1 cm)

SHRED SOME TREAD!



ROCKET POWERED RACE CARS!

Age 12+

THE
EXCITEMENT
OF
ROCKETRY
IN A CAR!

SUPER SONIC DRAGSTERS

WICKED STREET MACHINES

RACE ALONE
OR
SIDE-BY-SIDE
WITH
FRIENDS!



Get a Rocket Powered
Racer and Race at The
Speed of Sound Today!



Complete Race Track
& Starter Set

4 AA alkaline batteries required
sold separately

DRAGSTERS

Asst. #9114

Red Menace #2040

Blue Storm #2041

Green Mantis #2042

SPECS: Length: 12.5 in. (31.8 cm);

Wheelbase: 3.4 in. (8.6 cm)

Additional A10-PT Race Engines - sold separately

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TUNERS

Asst. #9115

Drag 'On #2046

Gear'zilla #2047

Slammural #2048

SPECS: Length: 8.25 in. (21 cm);

Wheelbase: 3.3 in. (8.4 cm)

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